

**COMMONWEALTH OF MASSACHUSETTS**  
**DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

---

Investigation by the Department of Telecommunications and )  
Energy on its own motion, pursuant to G.L. c. 159, §§ 12 )  
and 16, into the collocation security policies of ) D.T.E. 02-8  
Verizon New England, Inc. d/b/a Verizon Massachusetts )  

---

**REBUTTAL TESTIMONY**

**of**

**ROY LATHROP**

**On Behalf of**

**WORLDCOM, INC.**

**Submitted:**  
**May 15, 2002**

1. **INTRODUCTION**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, EMPLOYER AND PRESENT POSITION.**

A. My name is Roy Lathrop, and my business address is 1133 19<sup>th</sup> Street, NW, Washington, DC 20036. I am an Economist in the Regulatory Analysis group of WorldCom Inc.'s ("WorldCom") Law and Public Policy section.

**Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND BACKGROUND.**

A. I am responsible for developing and promoting WorldCom's public policy positions before state and federal regulators. These policy positions generally involve encouraging competition by ensuring that incumbent local exchange carriers ("ILECs") are required to provision collocation and unbundled network elements ("UNEs") in a non-discriminatory manner at prices based on the Total Element Long Run Incremental Cost ("TELRIC") methodology. In my seven years at MCI/WorldCom, I have had a variety of responsibilities, including testifying as an expert witness in numerous state regulatory proceedings addressing collocation costing, pricing and terms and conditions, explaining the need for and defining the basic requirements for line splitting over the UNE -platform, and other public policy issues, as well as participating in panels at the National Association of Regulatory Utility Commissions ("NARUC").

Prior to joining WorldCom, I was employed in the Telecommunications section of the Washington Utilities and Transportation Commission ("WUTC"), where I analyzed economic and policy issues involved in developing an alternative form of regulation for

US West, and costing and pricing issues related to network unbundling proposals. Prior to working at the WUTC, I was employed by the California Public Utilities Commission ("CPUC"). My assignments at the CPUC included three years in the Telecommunications Rate Design Branch of the Division of Ratepayer Advocates, where I provided analysis and expert testimony on various rate design, cost and tariffing issues, including cases implementing incentive regulation for California local exchange carriers. Subsequently, I served as a Commission Advisor responsible for economic and policy analysis for the electricity, natural gas and water industries. Prior to working at the CPUC, I was employed as a Research Economist at the Community and Organization Research Institute, where I conducted econometric and policy analysis related to water demand. I received a Bachelor of Arts degree in Economics and Environmental Studies, and a Master of Arts degree in Economics from the University of California at Santa Barbara.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

**A.** The purpose of my testimony is to respond to the proposals set forth in the Panel Testimony ("Panel Testimony") of Verizon Massachusetts ("Verizon") filed April 5, 2002 in response to the Department's Vote and Order to Investigate ("Vote and Order") issued January 24, 2002 in this proceeding.

**Q. DO YOU AGREE THAT THE DEPARTMENT HAS A LEGITIMATE INTEREST IN INVESTIGATING COLLOCATION SECURITY?**

A. Yes. As WorldCom stated in its May 1, 2002 comments concerning the CLEC motion to suspend these proceedings, WorldCom agrees that the acts of terrorism of September 11, 2001 have appropriately prompted renewed focus on protecting the nation's telecommunications infrastructure from harm. Although WorldCom believes that a national level approach would be more efficient and ultimately more beneficial than the state-level investigation on which the Department has embarked, WorldCom cannot fault the Department for its concerns or its commitment to investigating this critical issue.

**Q. DO THE PROPOSALS OUTLINED IN VERIZON'S PANEL TESTIMONY RESPOND TO THE DEPARTMENT'S CONCERNS?**

A. Unfortunately not. As discussed further below, Verizon has neither identified credible threats to the security of its network, nor proposed solutions to legitimate security problems. Instead, Verizon has sought to use the Department's investigation as a springboard for its anticompetitive agenda. Although Verizon's proposal lacks critical detail, it is nevertheless clear that Verizon seeks (among other things) to eliminate physical collocation or make it prohibitively expensive, thereby reducing or eliminating the ability of CLECs to adequately service the needs of their customers. In the name of "national security," Verizon has proposed measures that will not in fact enhance network security, but will instead derail the national policy in favor of competitive telecommunications markets envisioned by the Telecommunications Act of 1996.

**Q. HOW IS YOUR TESTIMONY ORGANIZED?**

A. My testimony is organized into five sections. Following this introductory section, the second section discusses the role of collocation, and in particular physical collocation, in enabling facilities based competitors to provide competitive options to Verizon's service offerings. I explain the importance of physical collocation in permitting competitive local exchange carriers ("CLECs") to control their equipment, including its installation, maintenance and repair. This control has a direct impact on the quality of services CLECs can offer (for example, by providing various service commitment levels).

In section three, I explain that all providers have an interest in network security and integrity. I discuss WorldCom's interest in network security and outline the procedures on which WorldCom relies to ensure the capability of its field personnel.

In section four, I address Verizon's proposals to the extent possible given their lack of specificity.<sup>1</sup> Based on information I do have, Verizon's proposals have little to do with the "...heightened security concerns after the events of September 11, 2001"<sup>2</sup> and more to do with Verizon's attempt to gain competitive advantages over CLECs by imposing unnecessary, costly and illegal restrictions. In some cases, these restrictions could prevent competitors from providing effective service to entire groups of

---

<sup>1</sup> Each of Verizon's enumerated proposals suffer from a lack of specific identification of central offices and collocators affected (subject to appropriate confidentiality provisions). As well, Verizon's proposals lack any cost quantification, thereby presenting the possibility that Verizon is simply asking for a "blank check" to be used to implement its anticompetitive proposals. Based on these issues alone, the Department could reject Verizon's proposals in this proceeding.

<sup>2</sup> Panel Testimony at page 16.

customers (for example, those that demand service level guarantees, or those served from central offices Verizon considers “critical”).

In section five, I respond to Verizon’s cost recovery proposal. Verizon essentially requests collocators to underwrite Verizon’s perceived need for increased security. Yet because Verizon alone would determine, engineer and control the implementation of its proposals, Verizon would be the “cost causer” for purposes of cost recovery, not the CLECs. (However, as detailed in section four, even if Verizon proposed to fund its proposals itself, they should not be adopted because of their adverse competitive and operational impacts on collocators.)

Finally, in section six, I provide recommendations and conclusions regarding the specific issues identified by the Department for examination in this proceeding.

**Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

A. My testimony addresses the several proposals set forth in Verizon’s Panel Testimony and recommends a less draconian approach to ensuring the security of telecommunications infrastructure than that proposed by Verizon.

Verizon’s proposals fall into two categories: the five (numbered) “pro active” collocation security measures and two (unnumbered) other security measures. Regarding the proactive measures, Verizon’s Panel Testimony requests the Department to adopt measures that conflict with federal requirements and to impose anticompetitive and illegal restrictions

on collocation. Verizon makes no real attempt to link its proposals to the type of security threats arising from the events of September 11, 2001. The lack of specificity of Verizon's proposals with respect to the central office locations affected and costs Verizon seeks to impose on CLECs suggest that, if adopted, Verizon's proposals would enable it to foist significant costs on collocators with no certainty the results would address the Department's concerns. This is unacceptable and should be rejected. As the FCC has stated, ILECs "...have incentives to overstate security concerns so as to limit physical collocation arrangements and discourage competition."<sup>3</sup> Similarly, the Department stated that the "security of facilities ultimately protects the consuming public, and we must not lose sight of that principle. But security concerns cannot be a reflexively accepted excuse for encumbering and impeding competitors..."<sup>4</sup>

The second category of collocation security measures consist of Verizon's proposals to add to its existing security measures (such as card readers and cameras), as well as to strengthen its pre-screening of CLEC personnel with access to Verizon central offices. While these measures appear less controversial, Verizon fails to explain why the card readers and cameras it proposes in this proceeding were not included when Verizon proposed similar measures in an earlier proceeding that

---

<sup>3</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, CC Docket No. 98-147, FCC 01-204, Released August 8, 2001 ("Fourth Report and Order") at paragraph 102.

<sup>4</sup> Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in the following tariffs: MDTE Nos. 14 and 17, filed with the Department on August 27, 1999 to become effective on September 27, 1999, by Verizon New England, Inc. d/b/a Verizon-Massachusetts, DTE 98-57 – Phase I, September 7, 2000 ("Phase I Order").

addressed collocation security costs. In addition, Verizon suggests these measures are generally ineffective, raising the issue of whether Verizon would propose such measures if it were proposing to share in the cost recovery. To the extent Verizon wishes to strengthen its central office access policies and identification badge control policies and not restrict competitors' ability to serve their customers, I generally have no objection.

Finally, regarding the specific issues raised by the Department, Verizon has failed to provide any credible evidence that the collocation rules as set forth by the FCC, or Verizon's current security measures (as augmented by the unobjectionable proposals to strengthen its central office access and ID badge control policies) are inadequate in ensuring network security. As such, I recommend the Department decline Verizon's invitation to petition for changes in the FCC's collocation rules, and continue to adhere to those rules regarding the extent and nature of appropriate access by personnel of other carriers to Verizon's central offices and other facilities [e.g., remote terminals] for accessing collocation sites. (That is, physical collocation should continue to be required without escorts.) In addition, I recommend that Verizon continue to be required to offer cageless collocation arrangements, since Verizon has not provided sufficient proof that cageless collocation is an unacceptable security risk. Furthermore, I do not oppose Verizon's proposal to strengthen existing security measures, provided the measures do not impose unwarranted costs or operational delays on collocators.



## **2. THE ROLE OF COLLOCATION**

### **Q. IS COLLOCATION IMPORTANT TO CLECS?**

**A.** Yes. Many CLECs rely on collocation to gain access to the ILEC network to bring the benefits of competition, innovation and the deployment of new technologies to consumers of local telecommunications services. Indeed, to offer ubiquitous coverage in a given area, CLECs may need to collocate at a number of ILEC central offices (“COs”), or other ILEC premises, as the entrants expand their facilities. Thus, for most CLECs, the ability to collocate is absolutely crucial, and hence the development of facilities-based local competition requires that collocation alternatives be available at ILEC premises (at cost-based rates, and provided within reasonable intervals).

### **Q. IS CAGELESS COLLOCATION AN IMPORTANT FORM OF PHYSICAL COLLOCATION?**

**A.** Yes. The FCC noted the potential to avoid premature space exhaustion, as well as the opportunity to collocate at lower cost, when it required ILECs to offer cageless collocation in single-bay increments.<sup>5</sup> That is, segregating space by partitioning reduces the total amount of telecommunications equipment that can be placed in a central office. The prospect of ILEC claims of space exhaustion for collocation illustrates the importance of alternatives to traditional physical collocation, including cageless collocation.

---

<sup>5</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, (“Advanced Services Order”), FCC 99-48, Release March 31, 1999, at paragraph 43.

**Q. ARE THERE ADVANTAGES TO PHYSICAL COLLOCATION WHEN COMPARED WITH VIRTUAL COLLOCATION?**

**A.** Yes. Physical collocation permits CLECs to have physical access to the equipment and thus control over installation, the ability to perform upgrades, maintenance and repair of the equipment. Without physical access to its equipment, WorldCom must rely on Verizon, a competitor, to maintain and repair the equipment used to serve WorldCom customers. In addition, if WorldCom needs to augment the equipment in a virtual collocation, it must rely on Verizon to install the equipment; any delay in installation time results in delays in service provisioning and delays in new revenue. Furthermore, WorldCom is responsible for the cost of training Verizon personnel to maintain and repair its virtually-located equipment. WorldCom has been required by Verizon to hire a certified vendor to “translate” WorldCom engineering instructions into the Verizon format, thereby adding costs and required lead time that are not required with physical collocation.

Moreover, with physical access to the equipment, WorldCom is able to offer service level agreements (“SLAs”) that guarantee customers specific service availability and performance. Because the SLAs include “penalties” that compensate customers if WorldCom does not meet specific service levels, it is imperative for WorldCom to have physical access to its equipment and operational control over its services.

The FCC recognized this need when it required ILECs to permit collocators access to their equipment “24 hours a day, seven days a

week, without requiring either a security escort of any kind or delaying a competitor's employees' entry into the incumbent LEC premises by requiring, for example, an incumbent LEC employee to be present." The FCC stated "If competitors do not have such access, they will be unable to service and maintain equipment or respond to customer outages in a timely manner."<sup>6</sup>

If WorldCom is prohibited from obtaining physical collocation in Verizon premises, or required to convert physical collocation arrangements to virtual collocation arrangements, the quality of service it can guarantee would be diminished with the loss of operational control of the equipment.

**Q. CAN CLECs ESTABLISH SYSTEMS FOR VIRTUAL COLLOCATION THAT ARE COMPARABLE TO PHYSICAL COLLOCATION AS VERIZON CLAIMS?<sup>7</sup>**

A. Not entirely. Verizon states that CLECs can establish comparable systems used in physical collocation to access remotely its virtually collocated equipment for monitoring, provisioning and testing. While this is true, performing these limited (though useful) functions remotely is **not** comparable to having the operational control that physical access to equipment 24 hours a day, seven days a week provides.

**3. SECURITY ISSUES**

**Q. IS VERIZON THE ONLY PROVIDER INTERESTED IN NETWORK SECURITY?**

---

<sup>6</sup> Advanced Services Order at paragraph 49.

<sup>7</sup> Panel Testimony at page 11.

A. No. The tone in Verizon's testimony implies that the only threat to network harm arises from the presence of collocators' personnel and that Verizon alone is interested in network security. All carriers, however, have a stake in network security, including the security of Verizon's network. This is so both because the networks are interconnected as well as because carriers often purchase elements of Verizon's network. Furthermore, Verizon fails to mention the potential threat to network security posed by the actions (both intentional and inadvertent) of its own employees. Indeed, Verizon notes that one security measure permitted by the Department is " the designation of a specific (even separate) entrance for CLEC use during work stoppages,"<sup>8</sup> implying that some concern exists for the personal safety of CLEC personnel, presumably because Verizon employees might engage in misconduct during work stoppages.

**Q. IN SUPPORT OF ITS PROPOSALS, VERIZON CITES CONCERNS WITH UNRESTRICTED ACCESS AND UNSEPARATED SPACE. PLEASE COMMENT.**

A. Verizon states that "unrestricted access, combined with unseparated space and/or commingled equipment, creates security risks that increase the likelihood of accidents – whether inadvertent or intentional – and the threat of sabotage. Accordingly, security procedures must be adopted to protect Verizon's network."<sup>9</sup> Verizon fails to note that unrestricted access permits facilities based competition, to the benefit of Massachusetts customers, and that such access was required by the FCC to enable

---

<sup>8</sup> Panel Testimony, footnote 12 at page 14, citing DTE 98-57 Phase I Order.

<sup>9</sup> Panel Testimony at page 23.

CLECs to offer a competitive level of service. In addition, in the Phase I-B Order in Docket 98-57, the Department stated (responding to Verizon's attempt to require security escorts at remote terminals) that "the FCC's collocation rule concerning security escorts is unequivocal."<sup>10</sup>

**Q. WHAT ACTIONS DOES WORLDCOM TAKE WITH RESPECT TO MAINTAINING NETWORK SECURITY AT VERIZON PREMISES?**

A. WorldCom's interest in network security and integrity is borne out by training and development of its field personnel. This can be illustrated by the following procedures, on which WorldCom relies to ensure that network security is maintained at ILEC facilities. A brief summary of a standard three month training and orientation schedule for new field technicians in Massachusetts includes the following schedule:

Week 1: New employee is given standard orientation (WCOM policies). Technician completes forms for Wcom access cards, cardkeys, MIS system access, Verizon access badge, etc.

Week 2 and 3: Technician completes two weeks of On the Job Training by shadowing a Senior Dispatch Technician on his/her normal duties. Technician learns procedures for accessing sites, dispatching routines and standards for test, turn-up and maintenance of WCOM traffic.

Week 4: Technician completes one week of hands-on training at a local technical lab facility. Technician learns industry standards for wire wrapping, labeling, rack assignments etc., operating around live equipment, testing of DS-O, T-1 and DS-3 etc.

Week 5 and 6: Two weeks training at a WCOM inside node facility, shadowing a node technician and learning inside operations.

Week 7 - 13: On the Job Training shadowing various dispatch technicians for remainder of training/orientation period. Technician

---

<sup>10</sup> Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in revisions to MDTE No.17 filed with the Department by Verizon New England, Inc. d/b/a Verizon-Massachusetts, DTE 98-57 (Phase I-B), May 24, 2001, at page 19.

may also be assigned various computer and distance learning training modules based on skill level.

In addition, WorldCom conducts background investigations (including checking employment, education, criminal and motor vehicle records and drug testing) before hiring employees. If Verizon proposes to conduct a level of inquiry that extends beyond that conducted by WorldCom, then Verizon should be required to pay to obtain the information.

**4. VERIZON'S PROPOSAL**

**Q. WHAT IS VERIZON'S OVERALL PROPOSAL?**

A. Verizon's proposal consists of at least seven parts, which are set forth at pages 4 and 5 of its Panel Testimony. Verizon's five enumerated points generally attempt to restrict, if not eliminate physical collocation and also to require complete segregation of collocators' equipment, and to require escorts. Each of the enumerated "pro active" items will be discussed below, as will the two additional unnumbered items, in which Verizon proposes to add security devices (such as cameras and card readers) to central offices, and to implement "in-depth" prescreening of CLEC personnel with access to equipment as a requirement for obtaining identification badges.

**Q. BEFORE ADDRESSING THE SPECIFICS OF VERIZON'S PROPOSAL, HAS VERIZON PROVIDED ANY EVIDENCE THAT WOULD WARRANT A CHANGE IN EXISTING FEDERAL COLLOCATION RULES?**

A. Absolutely not. Despite the sweeping nature of its proposals, most of which would require the FCC to alter its current collocation rules, Verizon's Panel Testimony is remarkably void of proof that such sweeping changes are advisable, let alone necessary to preserve the security of the telecommunications network. Given that collocation has now existed for years, and has succeeded in allowing carriers other than the incumbents to offer facilities-based services to millions of end-users throughout the nation, one would expect a proposal to undo much of that success to offer compelling proof that such a radical change is necessary. Verizon offers no such proof.

**Q. WHAT IS VERIZON'S FIRST PROPOSAL?**

A. For all forms of physical collocation, Verizon proposes to segregate collocators' equipment from Verizon's equipment by establishing "separate space" with separate entrances and/or pathways. Any collocators' equipment in the same room as Verizon's equipment would have "some reasonable means of physical separation (e.g., partitioning) and secured access."

**Q. IS VERIZON'S FIRST PROPOSAL REASONABLE?**

A. No. Verizon's proposal to segregate collocators' equipment from its own in all instances is inconsistent with FCC requirements. "An interpretation (of section 251c6) that would allow an incumbent to require separation of equipment or separate entrances in all cases, regardless of the potential effect on competition, would fail to properly balance the statute's

competing interests.”<sup>11</sup> The FCC placed specific requirements on ILECs wishing to require segregated space and separate entrances. In fact, Verizon cites the conditions to which segregated space is subject at footnote 10 of the Panel Testimony:

(i) either legitimate security concerns, or operational constraints unrelated to the incumbent’s or any of its affiliates’ or subsidiaries competitive concerns, warrant such separation; (ii) any physical collocation space assigned to an affiliate or subsidiary of the incumbent LEC is separated from space housing the incumbent LEC’s equipment; (iii) the separated space will be available in the same time frame as, or a shorter time frame than, non-separated space; (iv) the cost of the separated space to the requesting carrier will not be materially higher than the cost of non-separated space; and (v) the separated space is comparable, from a technical and engineering standpoint, to non-separated space. 47 C.F.R. §51.323(i)(4).

As well, Verizon cites the conditions to which separate entrances are subject at footnote 11 of the Panel Testimony:

(i) construction of a separate entrance is technically feasible; (ii) either legitimate security concerns, or operational constraints unrelated to the incumbent’s or any of its affiliates’ or subsidiaries competitive concerns, warrant such separation; (iii) construction of a separate entrance will not artificially delay collocation provisioning; and (iv) construction of a separate entrance will not materially increase the requesting carrier’s costs. 47 C.F.R. §51.323(i)(4).

Verizon makes no effort to limit its proposal(s) in the manner required by the FCC, either by substantiating the timing, cost and comparability requirements imposed by the FCC, or by justifying legitimate security concerns or operational constraints. Moreover, Verizon provided no cost support for any of its proposals in this proceeding and certainly

---

<sup>11</sup> Fourth Report and Order at paragraph 100 (emphasis added).



provided no assurance that the cost of collocation arrangements would not be materially higher under its proposal. Also, Verizon did not commit to providing collocation arrangements in no less time than without its new proposals. Indeed, Verizon claims that the FCC requirements are outweighed by the security risks of physical collocation, despite the lack of evidence provided. Verizon simply states that its proposal is “reasonable and necessary...particularly in light of legitimately heightened security concerns resulting from the events of September 11<sup>th</sup>” and requests the Department’s assistance in changing FCC rules, if necessary.” Verizon’s request, however, should be rejected since Verizon has provided no basis for its recommendations.

Verizon’s proposal is anticompetitive in that Verizon seeks to impose unnecessary costs on collocators that Verizon itself will not face. For example, the FCC noted that mandatory separation of physical collocation space can “substantially increase physical collocation costs.”<sup>12</sup> As mentioned above, in placing limits on the ability to require separated space for collocation equipment, the FCC stated “...incumbents also have incentives to overstate security concerns so as to limit physical collocation arrangements and discourage competition.”<sup>13</sup>

Moreover, the FCC stated:

We believe this policy will help promote the efficient use of limited space and thereby advance the statutory preference for physical over virtual collocation. We also believe that this policy reasonably

---

<sup>12</sup> Fourth Report and Order at paragraph 99.

<sup>13</sup> Fourth Report and Order at paragraph 102.

balances the congressional goal of promoting competition against the incumbent's right to use and manage its own property.<sup>14</sup>

In short, Verizon has not provided sufficient evidence to justify the “legitimate security concerns or operational constraints” unrelated to competitive concerns the FCC set out as prerequisites to permit ILECs to require separation measures.

Verizon's first proposal should be rejected.

**Q. WHAT IS VERIZON'S SECOND PROPOSAL?**

- A. Verizon proposes to relocate existing “unsecured” cageless collocation arrangements to a segregated area of the CO or convert the cageless arrangement to virtual collocation where secured CO space is unavailable.

**Q. IS VERIZON'S SECOND PROPOSAL REASONABLE?**

- A. No. Verizon's second proposal suffers from several problems. First, the proposal suffers from similar defects as described above regarding Verizon's failure to provide any evidence that its proposal meets the requirements set forth by the FCC for segregating CLEC equipment. Second, where Verizon deems secured space is unavailable, cageless collocation arrangements would be converted into virtual collocation arrangements; the proposal is clearly inconsistent with the FCC requirement that ILECs offer cageless collocation.

Third, where Verizon proposes to relocate existing cageless collocation arrangements (to segregated area of the CO), it does not offer any compensation for customers placed out of service while equipment is

---

<sup>14</sup> Fourth Report and Order at paragraph 102.

moved and circuits rearranged. Under Verizon's proposal, CLECs could be subject to the expense of duplicating equipment to minimize customer service outages. Neither of these results are necessary to minimize the security threats that arise from the events of September 11, 2001. In addition, the conversion from physical cageless collocation to virtual collocation would result in CLECs losing operational control over collocated equipment and losing the attendant benefits that such control provides.

Verizon's second proposal should be rejected.

**Q. WHAT IS VERIZON'S THIRD PROPOSAL?**

- A. Verizon proposes to provide "reasonable access to shared facilities" (such as temporary staging areas, elevators, loading docks, restrooms, etc.) located outside collocators' segregated space, either by partitioning Verizon's equipment, if feasible, or through the use of escorts at the collocated carrier's expense.

**Q. IS VERIZON'S THIRD PROPOSAL REASONABLE?**

- A. No. Verizon's third proposal, if adopted, is likely to impose significant costs on collocators. Verizon quantifies no costs, failing to state the number of central offices and the extent of partitioning required to effect its proposal. Verizon does, however, propose to impose all costs on CLECs. The costs associated with this proposal would include the "engineer, furnish and installed" costs of partitioning, and could include moving equipment and possible modifications to the entire laundry list of central

office infrastructure (lighting, power, heating, ventilating and air conditioning, cable racking, etc.) to accommodate the changes. While Verizon's proposal only mentions adding partitioning, the fact that Verizon proposes to bear no costs means that Verizon has no incentive to minimize the cost of any of its proposals. Certainly, Verizon's proposal lacks any specific information that instills confidence that collocators will "pay only for the least expensive, effective security option that is viable for the physical collocation space assigned" as required by federal regulations.<sup>15</sup>

Verizon's alternative, in cases where partitioning is not feasible, is to provide escorts at the collocators' expense. This is clearly in violation of the FCC's rules that prohibit ILECs from imposing an escort requirement ("or delaying a competitor's employees' entry into the incumbent LEC's premises"), as explained above.

Verizon's third proposal should be rejected.

**Q. WHAT IS VERIZON'S FOURTH PROPOSAL?**

A. Verizon proposes that all remote terminal collocation be virtual collocation or, alternatively, for equipment physically collocated at remote terminals, that Verizon be permitted to require its personnel to escort CLEC technicians at CLEC expense.

**Q. IS VERIZON'S FOURTH PROPOSAL REASONABLE?**

A. No. The requirement for mandatory escorts is inconsistent with FCC requirements, as discussed above. There is no exception in the

---

<sup>15</sup> 47 CFR 51.323(l).

regulations for remote terminal collocation (or any other specific type of Verizon premises). In addition, physical collocation is required by the FCC and it, too, has no generic exception for remote terminals. As noted above, the Department has previously stated that the FCC's security escort rule is unequivocal. In the Phase I-B Order in Docket 98-57, the Department struck Verizon's security escort requirement for remote terminal collocation as inconsistent with the FCC's collocation rules.

Verizon's fourth proposal should be rejected.

**Q. WHAT IS VERIZON'S FIFTH PROPOSAL?**

A. Verizon proposes to classify what it terms "high" security risk central offices as "virtual collocation only" sites, requiring existing physical collocation arrangements to be converted to virtual collocation in those designated COs, "subject to Department approval." Verizon lists the following as factors to be considered in determining the "critical nature of a central office:"

(1) the type of switch or signaling elements housed in a CO; (2) the presence of critical customers (e.g., major airport, military installation, government agencies, and/or nuclear power plant) served by a CO; and (3) the number of access lines and special services circuits served by a CO. For example, a CO may be more critical if it houses a tandem switch, an E911 tandem switch, and/or STP equipment that are the "lifeline" to numerous subtending switches throughout Massachusetts.<sup>16</sup>

**Q. IS VERIZON'S FIFTH PROPOSAL REASONABLE?**

A. No. First, Verizon appears to be attempting to escape the requirements of the Telecom Act in the guise of security concerns. Verizon's proposal is

---

<sup>16</sup> Panel Testimony at page 39.

inconsistent with the FCC's requirement (as well as the Telecommunications Act of 1996) to provide physical collocation. Verizon cites to no "national security" exception to the physical collocation requirement because there is no such exception. The Act provides an exception if the ILEC "demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations."

It is clear that the law requires physical collocation. Verizon apparently proposes that "technical reasons" (i.e., security concerns) justify its proposed refusal to offer physical collocation. Verizon cites the FCC's Local Competition Order at paragraph 203 in stating that "security and network reliability issues are valid factors to consider in determining whether physical collocation is technically feasible."<sup>17</sup> Verizon has failed to meet the FCC's requirement, however:

Thus, with regard to network reliability and security, to justify a refusal to provide interconnection or access at a point requested by another carrier, incumbent LECs must prove to the state commission, with clear and convincing evidence, that specific and significant adverse impacts would result from the requested interconnection or access.<sup>18</sup>

Verizon provides only a general claim that there is an increased probability for harm to the network based on the increased number of people with access to Verizon's equipment. Verizon has not shown that its own (human) employees are incapable of accidentally (or intentionally)

---

<sup>17</sup> Panel Testimony at page 11.

<sup>18</sup> *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, FCC 96-325, First Report and Order, released August 8, 1996 at paragraph 203.

causing harm. Verizon has provided no list of specific and significant impacts sufficient to meet the FCC's requirement for security to be considered a technical reason for Verizon to avoid the requirement to provide physical collocation. (Indeed, Verizon downplays incidents in Massachusetts, stating no "egregious and harmful" incidents have taken place in Massachusetts.)

Second, Verizon's proposal lacks the specific information that would enable parties to comment in a meaningful way. For example, Verizon proposes to "work with the Department" (to the exclusion of its competitors?) to identify the "critical" central offices where only virtual collocation would be permitted. Verizon is the entity familiar with the contents of its central offices (types of switches, customers, number of lines and special services circuits served), yet it failed to identify which central offices its proposal would affect. It would be detrimental to competition to permit Verizon to prohibit physical collocation in the central offices with the most access lines. As described above, the ability to use physical collocation allows CLECs to provide a level of service that may not be possible with virtual collocation. Indeed, one wonders whether Verizon simply proposes a "wish list" of attributes that apply to its central offices in Massachusetts that serve a significant portion of customers – where Verizon would benefit if carriers were prevented from serving customers adequately.

Third, Verizon fails to address any potential competitive implication or transition mechanism. For example, if Verizon's proposal were to be adopted, what transition would be used to convert from physical to virtual collocations? How would Verizon ensure facility availability to prevent CLEC customer outages? If, as a consequence of eliminating physical collocation, a CLEC customer (or customers) wish to change service providers, will Verizon compensate the carriers for the lost revenue? Will Verizon refund the nonrecurring costs collocators were required to pay to establish the collocation arrangements?

**Q. HOW WOULD VERIZON'S FIFTH PROPOSAL IMPACT WORLDCOM'S ABILITY TO SERVE CUSTOMERS?**

A. WorldCom has a variety of customers that handle sensitive government information as well as customers responsible for public health and safety. If these customers are served from central offices Verizon identifies as "critical," for which Verizon proposes to eliminate physical collocation, it is possible that Verizon's proposal would result in WorldCom's inability to provide its customers with the same quality service that Verizon can provide by being the only provider with physical access to its equipment. This is anticompetitive and should not be permitted.

Verizon's fifth proposal should be rejected.

**Q. WHAT IS VERIZON'S SIXTH PROPOSAL?**

A. Verizon plans to deploy and enhance the use of various security devices, such as electronic card reader systems and cameras, "based on the needs of the particular CO."



**Q. IS VERIZON'S SIXTH PROPOSAL REASONABLE?**

- A. No. Verizon provides no specific itemization of the security devices it proposes to deploy, and provides no information regarding the number or location of central offices and thus there is no way to determine the cost associated with this proposal. (Verizon also provides no specific information to justify expenditures on whatever location it decides warrant additional security devices.) Interestingly, Verizon fails to explain why these additional security devices were not installed when Verizon proposed such security measures in an earlier proceeding and what has caused the need for their installation at this time.

Verizon's sixth proposal should be rejected.

**Q. WHAT IS VERIZON'S SEVENTH PROPOSAL?**

- A. Verizon plans to "implement an in-depth, pre-screening of collocated carrier personnel designated to access physical collocation arrangement in its COs as a requirement of providing identification badges."

**Q. IS VERIZON'S SEVENTH PROPOSAL REASONABLE?**

- A. No. Verizon's Panel Testimony regarding its seventh proposal lacks any explicit explanation of what sort of pre-screening Verizon intends to conduct. While WorldCom has no objection in principle to Verizon conducting pre-screening of WorldCom personnel as a requirement to receiving an identification badge for entry to central offices or other Verizon premises where WorldCom collocated equipment is housed, Verizon has provided no specific information to ensure any process will be

conducted in a nondiscriminatory fashion and to ensure that entry into premises will not be delayed. For example, Verizon has not explained what it may intend with respect to existing personnel with identification badges. As noted above, WorldCom conducts background investigations that include checking employment, education, criminal and motor vehicle records and drug testing before hiring employees. If Verizon proposes to conduct a level of inquiry that extends beyond that conducted by WorldCom, then Verizon should be required to pay to obtain the information.

Verizon's seventh proposal should be rejected.

**5. VERIZON'S COST RECOVERY PROPOSAL**

**Q. WHAT IS VERIZON'S COST RECOVERY PROPOSAL?**

A. Although Verizon "has not determined the costs associated with its proposed collocation security plan" it proposes to impose all costs on collocators.

**Q. IS VERIZON'S COST RECOVERY PROPOSAL REASONABLE?**

A. No. First, Verizon fails to recognize that as the entity demanding additional security measures, it would cause any costs to be incurred and thus it should shoulder those costs. Second, Verizon retains total control over all aspects of the expenditures, from identifying what it perceives as security concerns, to defining what it prefers as security measures, to dictating the method in which the measures will be engineered, furnished and installed. Thus, although Verizon has complete control of defining the

project scope and execution, it has no incentive to minimize costs or ensure work is done efficiently. Third, Verizon not only has not determined the costs, it has not proposed a cost recovery method. (For example, would costs be specific to central offices, or generalized and charged to all collocators?)

Verizon's proposal to recover costs from collocators for security measures it demands, and the installation and operation of which it controls, should be rejected.

**6. RECOMMENDATIONS AND CONCLUSIONS**

**Q. WHAT ARE YOUR RECOMMENDATIONS AND CONCLUSIONS REGARDING THE PURPOSE OF THE DEPARTMENT'S INVESTIGATION?**

A. One purpose of the Department's investigation is to review its prior findings with respect to access by personnel of other carriers to Verizon's central offices and other facilities, and to assess the security measures in place to protect those facilities.<sup>19</sup> In this respect, the Department's prior findings – that physical collocation, including cageless collocation, should be permitted, and that requiring escorts should be prohibited, should be reaffirmed. Verizon has provided insufficient evidence to support the notion that security and network reliability issues make physical collocation not technically feasible. Verizon provided only the vague contention that more people in its central offices increase the chance for

---

<sup>19</sup> *Investigation by the Department of Telecommunications and Energy on its own motion, pursuant to G.L. c. 159, sec 12 and 16, into the collocation security policies of Verizon New England d/b/a Verizon Massachusetts, Vote and Order to Open Investigation, DTE 02-8, January 24, 2002 at page 1. ("Vote and Order")*

network disruption. The public policy benefits of competition outweigh the potential costs of network outage risks associated with the additional people in Verizon facilities that collocators represent. As Verizon implicitly admits, the current risk of network harm is low. Moreover, reasonable measures to prevent access by unauthorized personnel are already in place.

Another purpose of the investigation is to determine which, if any, policies should be strengthened to safeguard telecommunications networks from human tampering to ensure reliable telecommunications service in Massachusetts.<sup>20</sup> The Department stated that the investigation will determine whether Verizon's security policies meet the statutory standard for "just, reasonable, safe, adequate and proper regulations and practices."

Verizon proposes policies that would minimize "human tampering" by CLECs, but not by Verizon employees – and, at the cost of possibly eliminating competitive alternatives for Massachusetts' customers. WorldCom (and perhaps other CLECs) conducts background checks before hiring employees and provides a significant amount of training, which should also minimize "human tampering." Verizon's proposed policies (in most respects) are not just and reasonable, and would not be proper, for the reasons explained above.

Finally, the Department stated that the investigation will include, but not be limited to, an examination of the following issues: (1) the extent and

---

<sup>20</sup> Vote and Order at page 6.

nature of appropriate access by personnel of other carriers to Verizon's central offices and other facilities [e.g., remote terminals] for accessing collocation sites; (2) whether cageless collocation arrangements remain an acceptable security risk; (3) the adequacy of security measures implemented in Verizon's central offices and other facilities, focusing on preventive, rather than "after-the-fact," measures; and (4) any other related security issues.<sup>21</sup>

With respect to these items, I reiterate my comment that the existing security measures should be reaffirmed. That is, collocators should have access to their equipment without escorts 24 hours a day, seven days a week. (There should be no exception for a specific type of premise, such as a remote terminal. Nor should there be an exception for national security; while protecting the nation's telecommunications infrastructure is clearly a vital and legitimate goal, adequate security and facilities-based competition – including collocation – are not mutually exclusive.) This is appropriate and indeed may be necessary for vigorous facilities based competition and the availability of a high quality of service for Massachusetts' customers. Also, requiring Verizon to provide cageless collocation remains an acceptable security risk and an important means for CLECs to obtain collocation at minimum cost and use of space. The type of policies Verizon has proposed as "preventive" are unwarranted, draconian and should not be adopted. Verizon has not provided clear and convincing evidence that the network security situation

---

<sup>21</sup> Vote and Order at page 6.

in Massachusetts requires such drastic measures. Simply put, whatever real problems might exist concerning collocation security, they have not been identified by Verizon, and therefore Verizon's proposals do nothing to reduce or eliminate real network security threats. Instead, Verizon has used this forum as a way to implement proposals designed to reduce the effectiveness of, or eliminate entirely, its competitors.

**Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

**A.** Yes, at this time.